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CONTENTS:

Williamson.—On the Manner of Oviposition and on the Nymph of Tachopteryx Thoreyi..... 1
Lovell.—Bees of Maine and Indiana . 4
Slosson.—On a Florida Beach..... 10
Rowley.—Notes on Missouri Springs. 12
Coquillett.—A New Genus of Ortalidæ 15
Rehn.—A New Genus of Deticinæ.... 16
Coquillett.—New Species of Diptera.. 16
Bruce.—New Variety of Lepisesia.... 19
Editorial 20
Entomological Literature..... 21
Notes and News..... 25
Doings of Societies..... 27

On the Manner of Oviposition and on the Nymph of Tachopteryx Thoreyi.

(ORDER ODONATA.)

Plate I.

By E. B. WILLIAMSON, Vanderbilt University, Nashville, Tenn.

Tachopteryx Thoreyi Hagen is the only representative in eastern North America of the legion *Petalura* (Selys) of the subfamily Gomphinæ. This legion has been regarded by late writers as the most primitive of all the Odonata *Anisoptera*. No nymphs of this legion have hitherto been described, so it is believed that the following description will be particularly welcome.

The nymph in question was collected by Mr. D. A. Atkinson, near Pittsburg, Pennsylvania, on June 4, 1900. Mr. Atkinson was collecting salamanders in a boggy spot along Squaw Run, a tributary of the Allegheny River in Alleghany County, when he saw the nymph clinging to the trunk of a tree, about two feet above the mud from which it had recently crawled, as the mud which covered it was not yet dry. This was about 10 A.M. Placed in a box the nymph climbed up one side to a height of

about eighteen inches, and the imago emerged at 5 P.M. In the boggy spot where the nymph was collected, at that time the only surface water was that which was retained in small depressions, such as the tracks of cattle, among the roots of the sedges and grasses. On July 15, 1900, Mr. J. L. Graf observed another female ovipositing in this same swale. She alighted among the dense grasses and placed the eggs among the roots or in wet decaying vegetable matter above the surface of the water. She would raise and lower her abdomen eight or ten times in one place, then fly to another spot. The time was between 10 and 11 A.M. On June 23, 1900, at Ohio Pyle, Mr. Graf discovered still a third female of this species ovipositing. A mere thread of water flowed along the railroad track from several small springs. The bed of this small stream was composed of cinders and sand. The dragonfly alighted in the grass near this stream and placed her eggs in a small depression in the cinders. This depression contained not more than a tablespoonful of water. Into this small basin she thrust her abdomen a number of times at the rate of fifteen or twenty times a minute. Mr. Graf caught her as she started to fly away. Held in the fingers she could not be induced to exude any more eggs. This was about 1 P.M. Neither Mr. Graf nor myself could discover the eggs where she had been ovipositing. While the female was resting in the grass a male was either fluttering about or resting on a large boulder close at hand.

Description of Nymph.—Length 38 mm., including abdominal appendages; tarsi 3–3–3; antennæ 7-jointed; lateral lobe of labium bent dorsally near its posterior edge to form a mask which covers the labrum and a portion of the clypeus; impression of the vulvar lamina and genital valves present on the sternum of the ninth abdominal segment. Color entirely concealed by the mud which encrusts the specimen and which a thorough washing failed to entirely remove. It is possible that structural characters may be obscured by this mud and so omitted in the following description.

Head wide, angular, square, convex in front, concave behind, the eyes placed in the outer anterior corners; roughened, generally sparsely hairy, edges and tubercles with dense bristle-like hairs; on each side, back of the eyes two prominent edges and a less developed one above; face in front of base of antennæ vertical; antennæ 3.5 mm. long, hairy, flattened, the basal joint largest, terete, with the external edge angular; last joint small, apex irregular; other joints about equal in size, slightly larger basally, about half as long as wide. Labium short and broad; middle

lobe square, 4.5 mm. long and 5.5 mm. wide, abruptly narrower near the posterior end; anterior edge with a larger tooth on either side of the median line and about ten smaller ones on either side; extending posteriorly to half way between the bases of the first and second pairs of legs; lateral lobes wide, opposed edges straight, notched with small serrations.

Prothorax angular, high, dorsum and sides meeting at nearly a right angle, the edge produced laterally and clothed with bristly hairs; all of thorax scantily clothed with short hairs. The thorax widens and deepens from the prothorax to the metathorax at the base of the third pair of legs where it is as wide as the abdomen in its widest part. The front wing cases extend to the posterior edge of the fourth abdominal segment; apparently the costas lie almost parallel; the cases of the hind wings reach to the middle of the fifth segment. Legs very robust, strongly formed, angular, especially the femora, the edges clothed with bristles; a deep depression in the mesosternum, between the second pair of legs, to accomodate the hinge of the labium.

Abdomen spindle-shaped, 23 mm. long, widest at the fifth segment where its width equals one-half its length, low, flattened, the sterna scarcely convex, terga convex, width of fifth segment 11 mm., depth 5 mm. Segment nine with a lateral posterior spine; on segments anterior this spine grows successively smaller, not present on first three segments. The mark, on the sternum of the ninth segment, of the ovipositor of the imago is conspicuous. On dorsum of segment five are two tufts of bristles, one on either side, separated from each other by about one-third the width of the segment, and placed a litttle nearer the posterior than the anterior margin of the segment; these tufts persist from the fifth to the ninth segments, the tufts on each segment successively approaching each other more closely till on the ninth they stand just on either side of the median line; each tuft is placed on an irregular elevation and in some cases seems to be double. Appendages short, middle one tapering; apex truncate, on either side produced to form a short tooth; laterals shorter, conical; inferiors compressed, wide, rounded triangular, longer than the middle appendage, the lower edges and the posterior ventral edge of the tenth segment between them bearing many long stiff, yellowish hairs.

Described from the exuvia of the reared female of June 4, 1900; both exuvia and imago are in my collection.

EXPLANATION OF PLATE I.

Fig. 1.—Dorsal view of Nymph of Tachopteryx Thoreyi Hagen, Pittsburg, Pa., June 4, 1900.

Fig. 2.—Dorsal view of the terminal abdominal appendages.

Fig. 3.—Median portion of the sternum of ninth abdominal segment showing the prominences for the ovipositor of the imago.

Fig. 4.—Labium of the exuvia.

The Bees of Maine and Indiana.

By JOHN H. LOVELL, Waldoboro, Maine.

PROSOPIS.

While the bees of the genus *Prosopis* are widely distributed, comparatively few species occur in any one locality. In New Mexico there have been described *P. asinina*, *mesillæ*, *rudbeckiæ*, *tridentulæ* and *wootoni*; in Illinois *P. affinis* (*ziziæ*), *illinœnsis*, *modesta*, *nelumbonis*, *pygmæa*, *saniculæ* and *thaspii*; in New Jersey *P. affinis*, *antennata*, *confluens*, *modesta* and *pygmæa*; and in Canada *P. affinis*, *basalis*, *elliptica*, *modesta* and *varifrons*. It will be observed that the species of New Mexico differ entirely from those of Illinois, and belong to a southern type. The bees of northeastern America, including Illinois, New Jersey, New England and Canada, form a natural group containing several species in common, while others are more local in their distribution.

My collections have been made within an area of a few square miles in Lincoln County, in southern Maine. This county lies in latitude 44° and borders upon the salt water. Very likely, when the State has been thoroughly explored, additional species may be discovered. This paper is based upon 66 specimens taken by myself at Waldoboro, Maine; and 37 specimens collected for me by Mr. R. J. Weith, at Elkhart, Indiana. I have been unable to find any record of observations upon Maine bees.

1. **P. basalis** Sm., 1853.

This is a very rare species in this locality. I have taken only a single specimen, a female, on the flowers of *Aralia hispida* which blooms in July. This species has been recorded from Canada, New Hampshire and New York. It may be recognized by its large size and the absence in the female of all yellow markings. The length of this specimen is 9 mm. Black, tarsi ferruginous, also the edge of the wing base. Face closely punctate, punctures elongate; clypeus and sides of face minutely pubescent; thorax closely punctate. First segment of abdomen smooth and shining, apical margin fringed laterally with a white pubescence.

2. **P. pygmæa** Cr., 1869.

A small species; length 4 mm. My first specimens were taken this season on the garden blackberry June 19th, and my last on the goldenrod August 22nd; this bee was also taken on the wild rose and *Aralia hispida*. Nine ♀ and eight ♂ specimens taken at Waldoboro, Maine, and seven ♀ and four ♂ specimens collected at Elkhart, Indiana.

♀.—Face marks bow shaped, yellow (in one specimen nearly dark); clypeus and supraclypeal piece dark, finely and irregularly striate; in one specimen there is a small dot on clypeus. Collar dark, two yellow spots on tubercles, sometimes with a minute dark dot in the center; tegulæ either with or without a yellow spot. First segment of abdomen smooth and shining, no apical fringe of pubescence on segments.

♂.—Base of all the tibiæ, tubercles, clypeus, supraclypeal piece and sides of face pale yellow; upward extensions of lateral face marks diverging from the orbit, and slightly enlarged and rounded at apex. Supraclypeal mark longer than broad. Yellow line on scape in front, flagellum testaceous beneath.

In Illinois females frequently have a spot on clypeus, and usually a spot on tegulæ; but the males are frequently without spots on tegulæ.

3. **P. sauiculæ** Rob., 1896.

♀.—More slender than *P. pygmæa*. A narrow, rather short yellow stripe on each side of the face, not filling the space between the clypeus and orbit. A yellow spot on each of the hind tibiæ; collar, tubercles and tegulæ dark. Head and thorax finely punctate; abdomen impunctate, shining; apical segments minutely pubescent.

My specimens were taken July 15–16th on *Aralia hispida*.

Waldoboro, Maine, 3 ♀ specimens; Elkhart, Indians, 2 ♂ specimens.

4. **P. modesta** Say, 1897.

♀.—Face marks triangular, two yellow spots on collar and tubercles, and base of all the tibiæ yellow. Flagellum testaceous beneath. No yellow spots on tegulæ or edge of wing-base. Head and thorax closely punctured; first abdominal segment smooth and shining, with lateral apical fringe of white pubescence. Wings dusky hyaline.

Elkhart, Indiana, 4 ♀ specimens. Robertson regards it as probable that Say's description was based on specimens taken in Indiana.

The females of this species in Illinois do not differ from this

description, except that sometimes they have small spots on tegulæ.

At Waldoboro, Maine, I have taken 32 female specimens that agree with the above description. My first specimens this season were taken July 15th on *Aralia hispida*, my last August 19th on the goldenrod. I have also taken these females on *Spiræa salicifolia*, *Ilex verticillata*, *Cornus stolonifera* and the wild rose. In size they show considerable variation. I have also taken in this locality 11 female specimens which have the face marks but slightly triangular or reduced to a narrow stripe. In one of these forms the collar is dark and the spots on tubercles are very small, otherwise they are typical. The markings are occasionally orange colored.

♂.—Clypeus, supraclypeal piece and sides of face yellow, upward extensions of lateral face marks tapering to a point. Anterior tibiæ in front and base of all the others are tarsi-yellow. First abdominal segment shining, punctuation sparse and faint, otherwise as in female.

Elkhart, Indiana, 19 ♂ specimens.

In Illinois, according to Robertson, 13 male specimens agree with this description, six had a yellow line on mandibles, five a yellow spot on labrum, one had the scape yellow in front and three had no spot on collar.

While the females of *P. modesta* are our commonest forms of *Prosopis* in Maine, the males are comparatively rare. As the result of much diligent collecting in this genus, I have taken but four males of *P. modesta*, two (taken on the goldenrod August 19th and 20th) agree with the above description, the third has no spots on collar, the fourth (taken July 16th on *Spiræa salicifolia*) has no spots on collar, but a spot on labrum and yellow lines on mandibles.

5. **P. affinis** Sm., 1853.
P. ziziæ Rob., 1896.

♀.—I have from Indiana a single specimen. It differs from *P. modesta* in having a yellow spot on tegulæ and the edges of wing-base yellow. Six female specimens collected at Waldoboro, Maine, conform to the type. As noticed by Cockerell they are rather smaller than *P. modesta*.

July 16th on *Aralia hispida* to August 11th on goldenrod.

♂.—Differs from the male of *P. modesta* in the broad truncation of the

upward extensions of the lateral face marks; in the yellow spot on tegulæ and edge of wing-base; and in having the first abdominal segment finely but closely and distinctly punctured. One of my specimens has the markings orange instead of yellow, and in another they are flesh colored. This species is much rarer than the preceding.

Waldoboro, Maine, 4 ♂ specimens; August.

Bibliography of North American Species of Prosopis.

EASTERN NORTH AMERICA.

Prosopis affinis Smith, ♀♂, Can., Me., Conn., N. J., Ind., Ill.
affinis Smith, Cat. Hymen. Br. Mus., i, No. 23, p. 24, 1853, ♀♂.
affinis Cr., Pr. Bos. Soc. Nat. Hist., xii, No. 3, p. 270, 1869, ♀♂.
affinis Prov., Nat. Can., xiii, No. 2, p. 259, 1882, ♀♂.
affinis Prov., Faun. Ent. Can. Hy., No. 2, p. 727, 1882, ♀♂.
ziziæ Robts., Can. Ent., xxvii, No. 5, p. 136, May, 1896, ♀♂.

P. antennata Cr., ♀♂, N. J., Maryland.
antennata Cr., Pr. Bos. Soc. Nat. Hist., xii, p. 271, No. 6, 1869, ♂.

P. basalis Smith, ♀♂, Hudson's Bay, Can.; Me., N. H., N. Y.
basalis Smith, Cat. Hymen. Br. Mus., i, No. 22, p. 23, 1853, ♀♂.
basalis Cr., Pr. Bos. Soc. Nat. Hist., xii, No. 1, p. 269, 1869, ♀♂.
basalis Prov., Nat. Can., xiii, No. 1, p. 258, 1882, ♀♂.
basalis Prov., Faun. Ent. Can. Hy., No. 1, p. 726, 1883, ♀♂.

P. confluens Smith, ♀, Florida.
confluens Smith, Cat. Hy. Brit. Mus., i, No. 24, p. 24, 1853, ♀.

P. elliptica Kirby, ♀, Canada.
elliptica Kirby, Faun. Bor. Am., iv, No. 368, p. 266, 1837, ♀.

P. flammipes Robts., ♀, Florida.
flammipes Robts., Tr. Am. Ent. Soc., xx, p. 273, 1893, ♀.

P. floridana Robts., ♀, Florida.
floridanus Robts., Tr. Am. Ent. Soc., xx, p. 273, 1893, ♀.

P. georgica Ckll., ♂, Georgia.
georgica Ckll., Psyche, vii, p. 438, Oct., 1896, ♂.

P. illinœnsis Robts., ♂, Illinois.
illinoisensis Robts., Can. Ent, xxviii, No. 5, p. 138, May, 1896, ♂.
illinœnsis Robts., Tr. Ac. Sci. St. Louis, vii, No. 14, p. 315, May, 1897, ♂.

P. labiatifrons Ckll., ♂, Georgia.
labiatifrons Ckll., Psyche, vii, p. 437, Oct., 1896, ♂.

P. modesta (Say), Cresson, ♀♂, Can., Me., N. H., Mass., Conn., Va., Ill., Ind., N. Y.
Hylæus modestus Say, Bos. Jour. Nat. Hist., i, 4, p. 392, 1837, ♀♂.
Hylæus modestus LeConte, Writ. of Th. Say, Entom., ii, p. 771, 1859.
modesta Cr., Synops. Hy. N. Am., p. 291, 1887.
affinis Robts., Tr. Am. Ent. Soc., xxii, p. 116, May, 1895.
modesta Robt., Can. Ent., xxviii, No. 5, p. 136, May, 1896, ♀♂.

P. nelumbonis Robts., ♀, Illinois.
nelumbonis Robts., Tr. Am. Ent. Soc., xvii, p. 318, 1890, ♀.
P. pennsylvania Ckll., ♂, Pa., Va.
pennsylvanica Ckll., Psyche, vii, p. 439, Oct., 1896, ♂.
P. pygmæa Cr., ♂, Ill., Ind., N. Y., Conn., Me.
pygmæa Cr. Pr. Bos. Soc. Nat. Hist., xii, No. 7, p. 272, 1869, ♂.
pygmæa Robts., Tr. Am. Ent. Soc., xxii, p. 116, May, 1895.
pygmæa Robts., Can. Ent., xxviii, No. 5, p. 136, May, 1896, ♀.
P. saniculæ Robts., ♀♂, Ili., Iowa.
saniculæ Robts., Can. Ent., xxviii, No. 5, p. 137, May, 1896, ♀♂.
saniculæ Ckll., Psyche, vii, p. 438, Oct., 1896, ♀.
P. schwarzii Ckll., ♀, Florida.
schwarzii Ckll., Ent. Mag., xxxii, p. 218, Oct., 1896, ♀.
P. sparsa Cr., ♀, Penn.
sparsa Cr., Pr. Bos. Soc. Nat. Hist., xxi, No. 4, 271, 1869, ♀.
P. thaspii Robt., ♀, Illinois.
thaspii Robts., Tr. Acad. Sci. St. Louis, viii, No. 3, p. 43, Mar. 3, 1898, ♀.
P. triangularis Ckll., ♂, Georgia.
triangularis Ckll., Psyche, vii, Suppl. i, p. 31, June, 1896, ♂.
P. verticalis Cr., ♂, Mass.
verticalis Cr., Proc. Bos. Soc. Nat. Hist., xii, No. 5, p. 271, '69, ♂.

WESTERN NORTH AMERICA.

P. asinina Ckll. and Casad., ♀♂, N. Mex.
asininus Ckll. and Casad., Tr. Am. Ent. Soc., xxii, p. 299, 1895, ♂.
bipes Ckll., Tr. Am. Ent. Soc., xxii, p. 300, Aug., 1895, ♀.
bipes Ckll., Synonym, Psyche, vii, Suppl. 1, p. 30, June, 1896
asinina Ckll., n. var., bigeloviæ, Bull. Denison U., xi, 3, p. 72, Nov., 1898, N. Mex., ♀.
Prosopis n. nom. Psyche, vii, Suppl. 1, p. 30, June, 1896.
P. bakeri Ckll., ♂, Colorado.
bakeri Ckll., Psyche, vii, Suppl. 1, p. 26, April, 1896, ♂.
P. citrinifrons Ckll., ♂, Colorado.
citrinifrons Ckll., Psyche, vii, Suppl. 1, p. 27, April, 1896, ♂.
P. coloradensis Ckll., ♂, Colorado.
coloradensis Ckll., Psyche, vii, Suppl. 1, p. 30, June, 1896, ♂.
P. coquilletti Ckll., ♂, California.
coquilletti Ckll., Psyche, vii, p. 439, Oct., 1896, ♂.
P. digitata Ckll., ♂, Colorado.
digitatus Ckll., Psyche, vii, Suppl. 1, p. 30, June, 1896, ♂.
P. divergens Ckll., ♂, Colorado.
divergens Ckl., Psyche, vii, Suppl. 1, p. 29, June, 1896, ♂.
P. episcopalis Ckll., ♂, Colorado.
episcopalis Ckll., Psyche, vii, Suppl. 1, p. 29, June, 1896, ♂.

P. mesillæ Ckll., ♂, N. Mex.
subtilis Fox, Tr. Am. Ent. Soc , xxii, p. 295, Aug., 1895, ♂.
mesillæ Ckll., Can. Ent., xxviii, p. 42, No. 2, Feb., 1896.
P. nevadensis Ckll., ♂, Nevada.
nevadensis Ckll., Psyche, vii, Suppl. 1, p. 32, June, 1896, ♂.
P. rudbeckiæ Ckll. and Casad., ♂, N. Mex.
rudbeckiæ Ckll. and Casad., Tr. Am. Ent. Soc., xxii, p. 300, Aug., 1895, ♂.
rudbeckiæ Ckll., n. var. ruidosensis, Psyche, vii, Suppl. 1, p. 30, June, 1896, ♂, N. Mex.
rudbeckiæ Ckll., n. var. subdigitata, Psyche, vii, Suppl. 1, p. 31, June, 1896, ♂, Colorado.
P. rugosula Ckll., ♂, Colorado.
rugosulus Ckll., Psyche, vii, Suppl. 1, p. 28, April, 1896, ♂.
rugosula Ckll., n. var. fallax, Psyche, vii, Suppl. 1, p. 28, Apr., '96.
P. suffusa Ckll., ♂, Nevada.
suffusa Ckll., Psyche, vii, Suppl. 1, p. 32, April, 1896, ♂.
P. tridens Ckll., ♂, Colorado.
tridens Ckll., Psyche, vii, Suppl. 1, p. 28, April, 1896, ♂.
P. tridentula Ckll., ♂, Colorado.
tridentulus Ckll., Psyche, vii, Suppl. 1, p. 27. 1896, ♂.
P. variifrons Cr., ♀, Colorado.
variifrons Cr., Pr. Bos. Soc. Nat. Hist., xii, No. 2, p. 270, 1869, ♀.
P. wootoni Ckll., ♂, N. Mex.
wootoni Ckll., Psyche, vii, Suppl. 1, p. 26. April, 1896, ♂.

MEXICO AND CENTRAL AMERICA.

P. azteca Cr., ♀, Mexico.
azteca Cr., Pr. Bos. Soc. Nat. Hist., xii, No. 8, 272, 1869, ♀.
P. dubiosa Cr., ♂, Mexico.
dubiosa Cr., Pr. Bos. Soc. Nat. Hist., xii, No. 9, p. 272, 1869, ♂.
P. grossa Cr., ♂, Mexico.
grossa Cr., Pr. Bos. Soc. Nat. Hist., xii, N. 9, p. 273, 1869, ♂.
P. maculipennis Smith, ♂, Mexico.
maculipennis Sm., Desc,. New Spe. Hymen., No. 18, p. 23, '79, ♂.
P. mexicana Cr., ♀♂, Mexico.
mexicana Cr., Pr. Bos. Soc. Nat. Hist., xii, No. 10, p. 272, '69, ♀♂.
P. trepanda Smith, ♀, Mexico.
trepanda Sm., Descr. New Spe. Hymen., No. 19, p. 23, 1879, ♀.
P. vigilans Smith, ♀, Mexico.
vigilans Sm., Descr. New Spec. Hymen. No. 17, p. 22, 1879, ♀.

CUBA.

P. limbifrons Cr., ♀, Cuba.
limbifrons Cr., Pr. Bos. Soc. Nat. Hist., xii, No. 12, p. 273, 1869, ♀.

On a Florida Beach.

By Annie Trumbull Slosson.

It has always been a favorite paradox of mine, one which I have often repeated to young friends—the smaller your field the more work you can do. All out-door collectors will know what I mean. If obliged by circumstances, whatever they may be, to remain in one particular locality, however limited, one is apt to observe interesting details, discover new objects which are overlooked when one can wander far and wide at his own sweet will. I found this so, very markedly, last winter in Florida.

I spent three months, from December to April, at Palm Beach, on Lake Worth. During the greater part of that time I was, owing to the serious illness of a friend, confined closely to the house. We were staying at a hotel situated directly upon the ocean beach. It was necessary, for some weeks, that all my collecting should be done within sight of the hotel, that I might be near at hand and summoned in any emergency. And the time of my absence from the house never exceeded an hour.

I had, for years, known this beach well and thought I had exhausted its resources, but I made many interesting discoveries in those brief and restricted rambles.

All along the shore grows tall, stout beach grass—a Uniola. Mr. Schwarz has written of the insects living upon this grass. I found many of the species mentioned by him and one or two which he had not found there. A small, black weevil, a Barid, was always on the sand near the roots of this grass. It proved to be Casey's *Limnobaris limbifer*. I found dozens of this species. I tried to investigate its life history, but in vain. I could not find it in any stage, except as imago, though I feel confident of its living in root or stalk of the Uniola. A little higher up and farther from the water another weevil was very abundant on the sand under low plants. This was *Acalles clavatus*. One of the convolvulus family, *Ipomæa pes-capri*, or goats-foot morning-glory trails over the sandy beach everywhere. It has roundish shining leaves and its stem grows from ten to twenty feet in length. This is the native food

plant of *Cylas formicarius*, the sweet potato weevil. I found this fact out several years ago and wrote to the late Dr. Hamilton about it, sending him sections of the *Ipomœa* stem with this species within it, in all its different stages. The good Doctor was much interested and urged me to record the discovery, but I have never done so till now. Under boards and sticks upon the beach I found often an odd and showy Anthicid, new to me. It was *Anthicus currax* Champ. as Mr. Schwarz tells me, and is described and figured in the Biologia Cent. Am. Mr. Schwarz says it is a maritime species and that he has found it at Jupiter and Capron, in Florida, and has it also from Texas.

In similar situations the Staphylinid *Cafius bistriatus* is found in great abundance, also many specimens of *Philonthus alumnus*, common all along the coast. Under all kinds of debris the different species of *Phaleria* were very numerous, *P. picipes* being least common. As usual, there are upon the white sand many whitish insects, difficult to distinguish on their pale background. A horse-fly, *Tabanus psammophilus* of palest gray, a large cream-white spider, two or three of the cricket family, pallid and silvery, several species of Dolichopodidæ of greenish white; a tiny fly, just the color of the sand, *Rhicnœssa albula;* these and many more pale, ghostly, shadowy creatures frequent the dazzlingly white sea sand, eluding, deceiving and aggravating the collector.

Two of the silvery crickets which I found on the sand were, respectively, *Cycloptilus squamosus*, known only, hitherto, from Texas, I think; and *Mogosoplictus slossoni*. This last genus I was so fortunate as to add to our fauna two or three years ago, its only American habitat heretofore being Chili. I found the species first under bark of fallen trees at Miami, Biscayne Bay, silvery, iridescent pearly little creatures, very agile and slippery.

One morning in March, just after an easterly storm, when for two or three days there had been a strong wind from the sea, I found on the beach some very odd, long-legged little beasts, not very unlike immature "water-boatmen." These were found to be, as Dr. Uhler wrote me, *Halobates wuellerstorfii*, a marine hemipter of the Hydrobatidæ, generally found far out

at sea. I saw scores of them, mostly dead, though a few showed signs of life—none were really active. Mr. Wickham wrote an exceedingly interesting paper concerning this species, published in ENT. NEWS, Vol. V, p. 45. He saw several specimens skimming on the surface of the water off Key West and also near Sand Key Light. This was in late June and early July. He speaks of their moving about "after the fashion of our common *Hygrotrechus*, but with extremely rapid movement," so that it was next to impossible to capture them from the vessel.

One hot day when there was a land breeze I heard people complaining of the "sand flies" along the shore, which made it almost impossible to stay there. This at once aroused my interest. Mr. Coquillett had spoken to me of a minute "midge," complained of by travellers in Florida and perhaps undescribed. I could not neglect this opportunity, so went to the beach as soon as possible. Sitting down on the sand under the lee of the bluff which skirts the shore, I was immediately made a martyr to science. Hundreds and thousands of these tiny flies swarmed about and over me, biting viciously, till my hands and face seemed pricked all over by red-hot needles. I secured many specimens. The fly is a *Ceratopogon*, perhaps *genualis*, a Cuban species, perhaps one new to science, so wrote Mr. Coquillett at the time; I have no more recent report. But I need no distinguished dipterist to tell me that the biting apparatus of this species is well developed and kept in good working order.

Notes on Missouri Springs.

By R. R. ROWLEY, Louisiana, Mo.

In May, 1899, Mr. G. M. Dodge of this place took two specimens of *Deidamia inscripta*, at apple blossoms, and in June following half a dozen or more imagœs of *Amphion nessus* about persimmon blooms, thus confirming the writer's previously expressed opinion that they would be found among our Sphingial fauna.

A close watch of the food plants of both these moths gave

no larvæ of either, and the only compensation for expended time was a lone larva of *Thyreus abbotii* on wild grapes.

On August 17th, the writer found almost countless numbers of larvæ of *Daremma catalpæ* on catalpa trees in the town of Greenville, Mo. These caterpillars were of all sizes from those just hatched to those full grown. Earlier broods had defoliated the trees, and the new leaves were fast disappearing before this late summer brood. The underside of every leaf gave from two to six young larvæ, and the full-grown "worms" were crawling about on the ground in search of fit places in which to burrow.

On turning over some stones and boards, several pupæ and larvæ ready to pupate, along with dry pupal skins from which moths had escaped, were found.

Unable to take care of the larvæ, I sent a box each to G. M. Dodge, of Louisiana, and O. C. Poling, of Quincy, Ill., from both of whom I afterwards procured pupæ, and for the following description of the younger larval stages I am indebted to Mr. Dodge: "August 20th. Larvæ received August 19th. Length of youngest larva about 5/8 of an inch. White above, green below. Head shining, black. Mandibles greenish. First segment or neck green. Dorsal line black, expanded anteriorly on each segment forming a pyriform spot. A black lunule embracing the straight black caudal horn. Horn starts backward.

"Subdorsal line black, interrupted, consisting of an irregular black dot on each segment (the posterior ones much the larger) connected by small black dots. A black spot follows the caudal horn.

"A larger specimen (length about one inch). The pyriform spots of the dorsal line become broader. It may be better described as a black stripe broadest on anterior part of each segment. The spots along the side are larger and connected by two dotted lines. First segment black above. Horn slightly recurved, base greenish.

"A third size (length about 1 1/8 inches) is distinctly yellowish on sides. The black spots have disappeared and the spiracles are marked by minute dots. The entire back is

broadly, velvety black, with two longitudinal broken rows of narrow whitish spots most distinct on the central segments. First segment yellowish green with a narrow curved line. The black of the back is bordered by a narrow white line which is itself margined outwardly by a very narrow more or less interrupted black line. In each form the prolegs are green with a black spot at their insertion on each side. True legs black."

The full-grown larva is 2½ inches long, with black head, broad black dorsal line or stripe; long, slender, slightly incurved black caudal horn. There are two lateral broken lines of black between which the color is yellowish green. The ventral suface is greenish. True legs black. The head is rather large and more like that of *Hemaris* than the larger Sphinges. The whole larva differs greatly from that of *Daremma undulosa*, our only other species of the genus, and in its uniform thickness throughout it again recalls the larva of *Hemaris*.

The long wire-like caudal horn, slightly recurved in the full-grown larva, reminds one both of *Hemaris* and the younger caterpillars of *Philampelus*.

The very young larvæ are pale and crossed by rows of black dots.

The pupæ vary much in size and color, the largest chrysalid being over 1½ inches in length and red-brown, while the smallest is hardly more than an inch and light yellowish brown. The burrow is not deep. The imago is much inferior to that of *undulosa* in color.

From one pupa the writer obtained a moth with one pair of wings much shorter, broader and more rounded at the extremities than on the opposite side. The antenna on the same side is shorter and weaker than on the other.

I found larvæ of *Actias luna*, feeding on persimmon, last July. Four of the large bombycids feed on this tree: *cecropia*, *promethea*, *regalis* and *luna*.

MRS. ANNIE TRUMBULL SLOSSON will, as usual, spend the winter in Florida. We will expect to receive more of her delightful collecting experiences.

A New Genus of Ortalidae.

By D. W. COQUILLETT.

Zacompsia gen. nov.

Near *Euexesta*, but the third antennal joint twice as wide as long and more slender, no acrostichal bristles, and the color not metallic. Body rather slender, front not punctured nor rugose, at the upper edge about one and one half times as wide as either eye, antennæ as long as the face, the third joint about twice as long as wide, rounded at the apex, arista bare, occiput strongly convex, cheeks about one-fifth as wide as the eye-height, proboscis short and robust, palpi clavate; thorax bearing one pair of dorsocentral, two supra-alar, two posthumeral, one humeral, one mesopleural and one sternopleural bristle, scutellum bearing four bristles, femora bare on the under side; first vein bare, third and fourth veins converging toward their apices, lower outer angle of anal cell prolonged in the form of a rather long lobe, small and posterior crossveins nearly perpendicular. Type, the following species:

Zacompsia fulva sp. nov.

Reddish yellow, the proboscis, apex of the third joint of antennæ, the arista except its base, an ocellar dot, small spot on occiput above the neck, the tibiæ, whole of front tarsi and apices of the others, brown, all bristles and the short bristly hairs black; wings hyaline, marked with four indistinct grayish crossbands; the first is below the humeral crossvein; the second is very broad and extends from the stigma to beyond the fifth vein; the third begins midway between apices of the first and second veins and passes over the hind crossvein; the fourth borders the tip of the wing from slightly before apex of second vein to slightly beyond apex of the fourth; body subopaque, not pruinose except the white pruinose pleura; front opaque, vertex polished, orbits and frontal lunule white pruinose; length, 4 5 mm. A specimen of each sex and a third specimem with the apex of the abdomen broken off.

Hab.—Texas (Belfrage) and Opelousas, La. (G. R. Pilate).

Type: No. 5199, U. S. National Museum.

The specimens from Opelousas were submitted by Mr. C. W. Johnson, by whom they were received from Dr. Garry de N. Hough.

THE BEE AS A MESSENGER.—Says the *Westminister Gazette*: A West County farmer is training bees as letter carriers. A bee is taken away from home and a letter printed in microphotography is gummed to his little back, and he is thrown into the air. Home he goes like a carrier pigeon, and the advantage he would have over his big brother in time of war is obvious. It is very unlikely that he would be seen; and, if seen, it would tax the skill even of the finest Boer marksman to bring him down. This is an idea worthy of the attention of the War Office.—*Newspaper.*

A New Genus of Deticinae.

By James A. G. Rehn.

The species on which this genus is founded was described by the writer (Trans. Amer. Ent. Soc., XXVII, p. 89) as a species of *Capnobotes*, but a closer study of the descriptions and plates of allied genera has confirmed the belief that it is generically distinct. The generic characters would be as in the subjoined diagnosis.

NEOBARRETTIA n. gen.

Pronotum saddle shaped, the posterior portion being elevated much more than the anterior portion; pro- meso- and metasternum with paired spines, those of the metasternum being the stoutest and those of the prosternum the most slender; tegmina and wings abbreviated, the former broadly rounded.

Type.—*Capnobotes imperfectus* Rehn. Tans. Amer. Ent. Soc., XXVII, p. 89.

I take pleasure in dedicating this remarkable genus to Mr. Otis W. Barrett, who collected the three types at Rio Cocula, State of Guerrero, Mexico.

This genus is one of the most interesting and remarkable in the subfamily. The position of it would probably be between *Capnobotes* and *Apote*, though this is hardly more than conjecture, as I cannot examine specimens of those genera to study the correlation of characters which seem so distinctive in specimens of the new genus.

Professor Lawrence Bruner informs me that he has a specimen of the new genus collected by Mr. Barrett at the same locality.

Three New Species of Diptera.

By D. W. Coquillett.

In the course of investigating the spread of diseases through the agency of insects, Dr. L. O. Howard encountered three new species of Diptera, and as it is desirable to exclude from his report all matter of a purely technical nature, a description of the new forms is offered herewith:

Chironomus halteralis sp. nov.

Head black, the palpi and antennæ yellowish brown, plumosity of male antennæ dark gray; thorax dark brown, the anterior end tinged with yellow, a pair of broad, gray pruinose vittæ on the posterior half of the mesonotum, the hairs light yellow; scutellum dark yellow; abdomen black, slightly polished, thinly covered with rather long yellow hairs; femora, tibiæ and tarsi yellow, bases of femora slightly tinged with brown; front tarsi slender, almost as long as the body, destitute of hairs, the first joint about twice as long as the front tibia; middle and hind tibiæ and their tarsi in the male thickly covered with rather long yellow hairs, much sparser in the female; halteres pale yellow, the knobs black; wings bare, hyaline, the apical half slightly darker, veins in the basal half yellow, in the apical half more brownish; length, 2 to 3 mm. Two males and two females. One of the females was collected May 16, 1899, by Mr. F. C. Pratt; the remaining specimens were collected May 22, June 2 and June 6, 1900, by Mr. Herbert S. Barber.

Hab.—Washington, D. C.

Type: No. 5202, U. S. Nat. Museum.

Helicobia quadrisetosa sp. nov.

Black, the apices of second antennal joints, face and genitalia yellow, frontal vitta dark brown; front of male at narrowest part three-fifths as wide as either eye, face yellow pruinose, third joint of antennæ three times as long as the second; body bluish gray pruinose, thorax marked with three black vittæ, the median one almost crossing the scutellum, four pairs postsutural dorsocentral bristles, the bristly hairs very short and depressed, abdomen with a blackish dorsal line and reflecting dark spots, second segment bearing a marginal row of small bristles of nearly an equal length and with a much longer lateral bristle, third and fourth segments each bearing a marginal row of bristles of nearly an equal length, longest on the fourth; first segment of the genitalia in the female also bearing a marginal row of bristles, in the male with a discal row of about six bristles; male hypopygium very large, polished, the first segment grayish yellow pruinose; hairs of legs very short, middle tibiæ of male each bearing a long bristle below the middle of the outer anterior side, on the posterior side with a short bristle at one-third its length and with a transverse pair of short ones at two-thirds of its length; hind tibiæ each bearing a pair of long bristles on the outer side near one-third of its length and with a second pair near two-thirds of its length in the female with an an additional bristle, situated below the middle of the inner side of each middle and hind tibia; wings hyaline, costal spine very small, first vein bristly from slightly beyond base of second vein nearly to apex of auxiliary vein, third vein bristly almost to small crossvein; length, 4.5 to 6 mm. Two males and four females, collected by Mr. F. C. Pratt, in 1899.

Hab.—Travilah, Md. (June 10 and 20); Washington, D. C.

(May 12 and 29, and July 18); Snicker's Gap, Va. (July 18).

Type: No. 5395, U. S. Nat. Museum.

Drosophila buskii sp. nov.

Head yellow, a black ocellar dot, center of upper part of occiput brown, two orange yellow frontal vittæ, converging anteriorly; front bearing a few short bristly hairs, the two pairs of vertical bristles placed one in front of the other, three pairs of orbital bristles, the four bristles composing the two anterior pairs placed transversely, the inner pair directed forward, the others backward; antennæ dark brown, the first two joints yellow, the third joint subequal in length to the second; the bristle below each vibrissa about two-thirds as long as the latter; mouth parts yellow; thorax yellow, opaque, yellowish gray pruinose, mesonotum marked with seven black vittæ of which the median one is forked posteriorly, pleura marked with three black vittæ, the upper two sometimes united anteriorly; scutellum yellow, the middle of the upper side next the base brown; abdomen black, a median vitta, the first segment largely, front edge of the second, and the outer front angles of the others, yellow; legs and halteres yellow; wings hyaline, unmarked, costa extending to apex of the fourth vein, last section of fifth vein almost as long as the penultimate section of the fourth, last section of fourth vein twice as long as the preceding section; length, 1.5 to 2 mm. Twenty specimens.

Hab.—Washington, D. C. (T. Pergande, D. W. Coquillett); Charlestown, W. Va. (A. Busck); Algonquin, Ill. (Dr. W. A. Nason).

Type: No. 5396, U. S. Museum.

Pieris occidentalis.—Last July, in Las Vegas, N. M., my little son Martin, found a number of larvæ which I took to be those of *Pieris protodice*, living upon *Cleome serrulata* (family Capparidaceæ). As the food-plant was a new one I requested him to rear the butterflies, so that we might be sure of the species. This he did, and when they emerged (3 ♂, 1 ♀) it turned out that they were not *protodice* but *occidentalis*. One specimen of a dipterous parasite was also bred; this has been referred by Mr. Coquillett to *Chætogædia crebra* V. d. W.—T. D. A. COCKERELL.

CORRECTION.—In ENT. NEWS, Vol. X, Dec., 1899, pp. 288–289, I recorded the occurrence in New York of what I then supposed was the Mantid known as *Stagmomantis carolina*. This year (1900) I have bred the insect from eggs laid at Rochester, N. Y., and Mr. Scudder finds that it is the common praying *Mantis* of Europe (*Mantis religiosa*), which has never before been recorded in America. I have just published a full account of this interesting introduction of a new beneficial insect in Bulletin 185 of the Cornell Experiment Station, a copy of which I will gladly send to any one interested.—M. V. SLINGERLAND.

A New Variety of Lepisesia.

By DAVID BRUCE, Brockport, N. Y.

Lepisesia ulalume var. **rachel.**

Expands 1⅝ inches, thus is somewhat smaller than *ulalume*, and has the light colored bar which crosses primaries and secondaries, lighter in color, wider and more distinct than in *ulalume*. This variety may be known at once from the sulphur-yellow color of the head, thorax, collar and patagiæ, whereas in *ulalume* the collar and thorax are intense black.

Ulalume was described and figured by Dr. Strecker in his Rhop. and Het., and the type was taken in Oregon by Prof. O. B. Johnson. I was collecting larvæ of *Alypia lorquini* on *Epilobium* and found a large *Sphinx* larva looking very much like that of *T. abbotii*. The anal horn was absent, and a shining button was in its place. I fed it carefully and it pulled a leaf or two over itself on the soil and pupated, and appeared as a moth in February. The specimen is therefore from Colorado, and is now in the collection of the Academy of Natural Sciences of Philadelphia.

PROF. W. G. JOHNSON, State Entomologist, located at the State Agricultural College of Maryland, resigned his position on December 14th, to accept the editorship of the "American Agriculturist," which has offices in New York, Springfield, Mass., and Chicago, Ill. He will locate permanently in New York. Prof. Johnson leaves Maryland with the esteem and good-will of those acquainted with his work. The Horticultural Society of Maryland at a recent meeting adopted resolutions stating that the Association was justly proud of the eminence Prof. Johnson had acquired throughout the United States by reason of his devotion to and proficiency in his profession. It is likely that Prof. H. P. Gould, Prof Johnson's assistant, will succeed him as State Entomologist.

MR. G. WESLEY BROWNING, of Salt Lake City, Utah, is not only an entomologist but also an artist of ability. Last year he very kindly made the drawing, *Stenopelmatus fasciatus*, for the cover of the NEWS, and this year he has made for us the fine drawing of both sexes of *Epicallia virginalis*. This species is abundant in July in the beautiful canon which supplies Salt Lake City with water from the Wasatch Mountains. Mr. Browning has a most interesting field of work, as the individual canons in the Wasatch seem to have a few species not found in the others. The sand dunes between Saltair and Garfield Beach on the Great Salt Lake would doubtless repay careful study, and might prove a mine of entomological treasures.

ENTOMOLOGICAL NEWS.

[The Conductors of ENTOMOLOGICAL NEWS solicit and will thankfully receive items of news likely to interest its readers from any source. The author's name will be given in each case, for the information of cataloguers and bibliographers.]

To Contributors.—All contributions will be considered and passed upon at our earliest convenience, and, as far as may be, will be published according to date of reception. ENTOMOLOGICAL NEWS has reached a circulation, both in numbers and circumference, as to make it necessary to put "copy" into the hands of the printer, for each number, three weeks before date of issue. This should be remembered in sending special or important matter for a certain issue. Twenty-five "extras," without change in form, will be given free, when they are wanted; and this should be so stated on the MS., along with the number desired. The receipt of all papers will be acknowledged.—ED.

PHILADELPHIA, PA., JANUARY, 1901.

A correspondent sends us the following:

"I would like to get your opinion as well as others upon the subject of establishing some sort of a black-list to protect well-meaning collectors from impositions practised upon them by some unscrupulous collectors in different parts of the country. Although the value of butterflies and moths may be small, still there are some who knowing the swindled ones have no redress take advantage of the confidence imposed in them by others to swindle and cheat them in making exchanges. I understand that in England, after due examination and inquiry, a black-list is published by the representative journals, and I think it would be a good scheme to adopt here."

We have known of but few cases, in an extended experience, where persons have made a practice of this mean kind of swindling, and such swindlers soon become known to collectors and exchangers. Such a list would have to be gotten out with the greatest care as some people have grievances without any logical basis. Also we are not informed as to the legal aspects of the case, and would be pleased to hear from any of our subscribers in regard to our right to publish such a list.

Entomological Literature.

COMPILED BY P. P. CALVERT.

Under the above head it is intended to mention papers received at the Academy of Natural Sciences of Philadelphia pertaining to the Entomology of the Americas (North and South). Articles irrelevant to American entomology will not be noted. Contributions to the anatomy, physiology and embryology of insects, however, relating to American or exotic species, will be recorded. The numbers in HEAVY-FACED TYPE refer to the journals, as numbered in the following list, in which the papers are published; * denotes that the paper in question contains descriptions of new North American forms. Titles of all articles in foreign languages are translated into English; usually such articles are written in the same language as the title of the journal containing them, but when such articles are in other languages than English, French, German or Italian, this fact is indicated in brackets.

2. Transactions of the American Entomological Society, xxvii, 1, Philadelphia, Oct., '00.—**3.** The American Naturalist, Boston, Nov., '00.—**4.** The Canadian Entomologist, London, Ont., Dec., '00.—**5.** Psyche, Cambridge, Mass., Dec., '00.—**9.** The Entomologist, London, Dec., '00.—**12.** Comptes Rendus. L'Academie des Sciences, Paris, '00.—**13.** Comptes Rendus. Societe de Biologie, Paris, Oct. 27, '00.—**15.** Biologia Centrali-Americana, pt. clviii, London, Oct., '00.—**21.** The Entomologist's Record, London, Nov., 15, '00.—**37.** Le Naturaliste Canadien, Chicoutimi, Quebec, '00.—**38.** Wiener Entomologische Zeitung, xix, 9, Nov. 5, '00.—**40.** Societas Entomologica, Zürich-Hottingen, '00.—**56.** Mittheilungen, schweizerischen entomologischen Gesellschaft, x, 7, Schaffhausen, Oct., '00 —**58.** Revista Chilena de Historia Natural, Valparaiso, Sept., '00.—**60c.** Comunicaciones, Museo Nacional de Buenos Aires, i, 7, Oct. 9, '00.—**64.** Annalen, k. k. Naturhistorisches Hofmuseum, xiv, 3-4, Vienna, 1899, rec'd. Nov. 18, '00.—**65.** La Feuille des jeunes Naturalistes, Paris, Dec. 1, '00.—**68.** Science, New York, '00.—**82.** Centralblatt für Bakteriologie, Jena, '00.—**83.** Notes from the Leyden Museum, xxii, 1-2, July, '00.—**84.** Insekten Börse, Leipsic, '00.—**116.** Biological Bulletin, ii, 2, Boston, Nov., '00.—**140.** Proceedings, Washington Academy of Sciences, ii, '00 —**141.** Proceedings, Indiana Academy of Sciences, 1898, Indianapolis, 1899, rec'd. Dec. 4, '00.—**142.** First Report, Michigan Academy of Sciences, Lansing, '00.—**143.** O. S. U. Naturalist published by the Biological Club of the *O*hio *S*tate *U*niversity, i, 1, Columbus, O., Nov., '00.—**144.** The New York Medical Journal, '00.—**145.** Mittheilungen, naturwissenschaftliches Vereins für Steiermark, Graz.

THE GENERAL SUBJECT.—Bengtsson, S. On the so-called "heartbodies" [Herzkörper] of insect larvæ as well as a contribution to knowledge of blood tissue, Bihang till K. Svenska Vetenskaps Akademiens Handlingar, xxv, 4, Stockholm, 1899.—**Porter, C. E.** Vital resistance of some Chilian arthropods [in Spanish], **58.**—**Volger, B.** Insects in proverb and poetry, **84,** Nov. 15, 22, 29.—**Williamson, E. B.** Biological conditions of Round and Shriner Lakes, Whitley County, Ind., **141.**

ECONOMIC ENTOMOLOGY.—Anon. Locust destruction, Agricultural Journal, Cape Town, Oct. 25, Nov. 8, [and] Screens and traps on the Cyprian system [for locust destruction], figs., 1d , Oct. 25, '00.—**Anon.** Mosquitoes communicate yellow fever, **144,** Dec. 8.—**Burrage, S.** Insects as factors in the spread of bacterial diseases, **141.**—**Celli, A.** Contribution to knowledge of malaria epidemiology from the newest etiological standpoint, iii, **82,** Nov. 5.—**Cook, O. F.** Peach yellows: a cause suggested [poisoning by bite of a Phytoptid mite], **68,** Dec. 7.—**Britton, W. E.** The San José Scale. From the Report of the Secretary of the Board of Agriculture for 1900. 13 pp. No indication of place of publication!!—**Fielding-Ould, R.** The malaria campaign, Nature, London, Nov. 8, '00.—**Gerdolle, A.** The phylloxera in the Metz country, Memoires, l'Academie de Metz, 1897-'98. 1900.—**Grassi, B.** First summary report on the experiment on prevention of malaria made in the vicinity of Paestum, **82,** Nov. 5.—**Howard, L. O.** The economic status of insects as a class, Annual Report of the Board of Regents, Smithsonian Institution, for the year ending June 30, 1898. Washington, 1899. Rec'd. Dec. 4, '00.—**Jenkins, E. H.** et al. The protection of shade trees in towns and cities, 9 pls., Bulletin 131, Connecticut Agric. Exper. Station, New Haven, Conn. Nov., '00.—**Knowles, M. E.** Sarcoptic scabies of the horse; psoroptic scabies of cattle in Montana, Journal of Comparative Medicine and Veterinary Archives, Philadelphia, Oct., '00.—**Kübler.** [Summary of Dr. R. Koch's third, fourth and fifth reports on the Malaria Expedition, and of Ziemann's 'On the relations of mosquitos to the malaria parasites in Kamerun'], **82,** Oct. 27.—**von Marenzeller, E.** Animals in the blood of man and their effects, Schriften des Vereines zur Verbreitung naturwissenschaftlicher Kenntnisse in Wien, xl, 1900.—**McFarland, J.** A review of our knowledge of malaria, **144,** Nov. 17.—**Reh, L.** Experiments on the ability of the Diaspinæ to resist external influences, Biologisches Centralblatt, Erlangen, Nov. 15, '00.—**Sanderson, E. D.** The strawberry root louse [*Aphis forbesi* Weed]; The destructive pea louse [*Nectarophora pisi* Kalt.] in Delaware, figs., Bulletin xlix, Delaware College Agric. Exper. Station, Newark, Del., Dec., '00.—**v. Schulthess Rechberg, A.** The malaria parasite and its alternation of generations, **56.**—**Seeman, H.** *Neuronia popularis* injurious to maize, **40.**—**Slingerland, M. V.** The grape root-worm [*Fidia viticida* Walsh], a new grape pest in New York, figs. Bulletin 184, Cornell University Agric. Exper. Station, Ithaca, N. Y., Nov., '00; **Id.** The common European praying mantis a new beneficial insect in America, figs., Bulletin 185 of the same, Nov., '00'—**Smith, J. B.** Crude petroleum versus the San José or pernicious scale, Bulletin 146, New Jersey Agric. Exper. Stations, New Brunswick, N. J., Nov. 1, '00.—[**Strachan, H.**] A link in the mosquito-malaria alliance, **144,** Dec. 8.

ARACHNIDA.—Cambridge, O. P. Arachnida Araneidea vol. i, pl. xxxiv, **15.**—**Thor, S.** Prodromus Systematis Hydrachnidarum,

Nyt Magazin for Naturvidenskaberne, xxxviii, 3, Christiana, 1900.—**Wheeler, W. M.** A singular Arachnid (*Koenenia mirabilis* Grassi) occurring in Texas, figs., **3.**

ORTHOPTERA.—Berg, C. *Pleminia argentina*, a new Pseudophylid, **60c.—Biolley, P.** Orthoptera recognized in Costa Rica from 1890 to 1900, 1 pl. [in Spanish], Tomado del Informe del Museo Nacional 1899–1900, pp. 41–57. Imprenta Nacional, 1900.—**Brunner v. Wattenwyl, C.** *Tristira*, new genus of Tryxalidæ, near *Stauronotus*, from Tierra del Fuego, figs., **60c.—Rehn, J. A. G.** Notes on Mexican Orthoptera, with descriptions of new species*, **2.—Scudder, S. H.** The species of *Circotettix*, a North American genus of Oedipodinæ, **5.—Slingerland, M. V.** See Economic Entomology.—**Tümpel, R.** Die Geradflügler Mitteleuropas. Lieferung 7 (Schluss). Eisenach, Verlag von M. Wilckens. This "Lieferung" deals with the Orthoptera proper and the Thysanoptera, and completes this work in 308 pp., 20 col. pls., 3 black and white pls., 92 text figs.—**Wheeler, W. M.** A new myrmecophile from the mushroom gardens of the Texan leaf-cutting ant [a Blattid—*Attiphila fungicola**], figs., **3.**

NEUROPTERA.—Calvert, P. P. Moults in the Odonata, **9.—Hine, J. S.** Additions and corrections to the "Odonata of Ohio," **143.—Kirby, W. F.** Notes on the Neuropterous family Nemopteridæ, Annals & Magazine of Natural History, London, Nov., '00.—**Mansion, A.** Frogs and dragonflies, Revue Scientifique, Paris, Dec. 1, '00.—**Osburn, R. C.,** and **Hine, J. S.** Dragonflies taken in a week, **143.**

HEMIPTERA.—Breddin, G. Mimicry among the Hemiptera (concl.) (transl.), Bulletin, Société Linnéenne du Nord de la France, xv, 329, Amiens, July-Aug., '00.—**Fowler, W. W.** Rhynchota Homoptera, vol. i, pp. 55–76, pl. viii [Flatidæ* Derbidæ*]; vol. ii, pp. 281–292, pl. xix [Tettigonia*], **15.—Hansen, H. J.** On the morphology and classification of the auchenorrhynchous Homoptera (cont.) (transl.), **9.—King, G. B.** A new *Pulvinaria* from New Mexico*, **4.—Osborn, H.** A list of Hemiptera collected in the vicinity of Bellaire, Ohio, **143.—Reed, E. C.** Synopsis of the Hemiptera of Chile (cont.) Capsina [in Spanish], **58.—Reh, L.** See Economic Entomology.—**Strobl, G.** Styrian Hemiptera, **145.** Jahrg. 1899. 1900.—**Then, F.** Contribution to knowledge of the Austrian species of the Cicadine genus *Deltocephalus*, 2 pls., **145,** Jahrg. 1899. 1900.—**Webster, F. M.** Distribution of broods, xxii, v, and viii of *Cicada septendecim* in Indiana, map, **141.**

COLEOPTERA.—Beaulieu, G. The Cicindelas of the Province of Quebec (cont.), **37,** Nov.; The Scarabæidæ of the Province of Quebec, **37,** Dec 15.—**Berg, C.** Note on the species of the genus *Alurnus* F. belonging to the Argentine fauna, **60c.—Donisthorpe, H.** Note on the copulation of *Hydrophilus piceus*, **21.—Howard, L. O.** The Ulke collection of Coleoptera, **68,** Dec. 14.—**Kincaid, T.** The metamorphoses of some Alaska Coleoptera (Papers from the Harriman Alaska Expedition), 5 pls., **140,** Nov. 24.—**Möllenkamp, W.** Six new Lu-

canid species and a new variety, **83.—Ponselle, A.** Contribution to the study of the habits of the Cicindelas, figs, **65.—Raspail, X.** The cockchafer (*Melolontha vulgaris*) in point of view of its progression in the intermediate years of its cycles, Bulletin de la Société d'Acclimatation de France, Paris, June, '00.—**Reitter, E.** Identification table of the Curculionid divisions Cossonini and Calandrini of the European fauna in the wider sense, Verhandlungen des naturforschenden Vereines in Brünn, xxxvii, 1899.—**Slingerland, M. V.** See Economic Entomology.

DIPTERA.—Anon. The resting position of *Anopheles*, **144,** Dec. 8.—**Chagnon, G.** Some Canadian Syrphidæ, **37,** Nov.; Preliminary studies on the Syrphidæ of the province of Quebec, **37,** Dec. 15.—**Coquillett, D. W.** Diptera: Entomological results from the Harriman Alaska Expedition*, **140,** Dec. 7.—**Henneguy, F.** The adipose body of the Muscidæ during histolysis, **12,** Nov. 26.—**Howard, L. O.** Remarks on *Psorophora ciliata*, with notes on its early stages, figs., **4.**—**v. Kertesz, C.** Remarks on Pipunculidæ (Dipt.), **38.—Leger, L.** On a new sporozoan of Dipterous larvæ, **13** and **12,** Oct. 29.—**Osten Sacken, C.** Notice on the synonymy of *Anopheles maculipennis* Meigen, Entomologist's Monthly Magazine, London, Dec., '00.—**Pettit, R. H.** A leaf-miner *Chironomus* sp., in water-lilies, figs., **142.—Stein, P.** Some remarks on Prof. Mik's criticism of my article on the Tachinidæ and Anthomyidæ of the Meigen collection in Paris, **38.—Strobl, G.** The Diptera of Styria, iv, **145,** Jahrg. 1897. 1898.—**Vaney, C.** Contributions to the study of the phenomena of metamorphosis in the Diptera, **12,** Nov. 5.—**Webster, F. M.** Species of Diptera reared in Indiana during the years 1884–1890, **141.**

LEPIDOPTERA.—Beutenmüller, W. Note on *Sesia arctica*, **4.—Clark, F. N.** Photographing the eggs of Lepidoptera, 1 pl., **21.—Clement, A. L.** Dispersal and varieties of *Attacus cynthia*, **65.—Dognin, P.** New Heterocera from South America, Annales, Société Entomologique de Belgique, xliv, 11, Brussels, Nov. 28, '00.—**Dyar, H. G.** Life histories of North American Geometridæ, xvii, **5.** Supplementary notes on *Orgyia*, **5.—Gibson, A.** The life history of *Arctia phalerata* Harr., **4.—Godman, F. D.** Lepidoptera Rhopalocera, vol. ii, pp. 501–532, pls. xcv, xcvi [Hesperidæ*], **15.—Grote, A. R.** Classification of the butterflies [and] Corrections (two papers), **4.—Hanham, A. W.** Additions to the list of Manitoba butterflies, with notes on other species, **4.—Lambillon, L. J.** Note on the cry made by the larva of *Acherontia atropos*, **21.—Mayer, A. G.** On the development of color in moths and butterflies, Biological Lectures from the Marine Biological Laboratory of Woods Holl, 1899. Boston, 1900.—**Pettit, R. H.** The habits of *Euclemensia* (*Hamadryas*) *bassetteila*, a true parasite belonging to the Lepidoptera, **142.—Piepers, M. C.** The evolution of color in Lepidoptera, **83.—Poling, O. C.** Notes on *Neophasia terlooti* Bhr., from Arizona, with description of a new variety*, **4.—Slevogt, B.** The enemies of our darlings [Birds, bats and dragonflies feed-

ing on Lepidoptera], **40,** Dec. 1.—**Smith, J. B.** Contributions toward a monograph of the Noctuidæ of boreal North America: revision of the species of *Acontia* Ochs.*, **2.—Standfuss, M.** Synopsis of experiments in hybridization and temperature made with Lepidoptera up to the end of 1898 (cont.) (transl.), 2 pls., **9.—Tutt, J. W.** *Cossus orc* Strecker at the Tilbury dock [London], **21.—Warnecke, G.** On some means of protection of caterpillars, **84,** Nov. 22.

HYMENOPTERA.—Ashmead, W. H. Some changes in generic names in the Hymenoptera, **4.—Berg, C.** Notes on two species of the genus *Odynerus* of Tierra del Fuego, **60c.—Bouvier, E. L.** The return to the nest among the predatory Hymenoptera of the genus *Bembex*, **13.—Cockerell, T. D. A.** Notes on New Mexico bees*, **4.—Fielde, A. M.** Portable ant nests, figs., **116.—Forel, A.** Nests of *Camponotus senex* Sm., and of *Macromischa sallei* Guérin; A natural triple formicary; *Cyrphomyrmex Wheeleri* n. sp.*; Imported ants, **56.—Frey-Gessner, E.** Hymenoptera Helvetiæ, pp. 117–148, **56.—Friese, H.** Monograph of the bee-genera *Megacilissa*, *Caupolicana* and *Oxæa**, 1 pl., **64;** Monograph of the bee-genera *Exomalopsis*, *Ptilothrix*, *Melitoma* and *Tetrapedia**, **64.—Kincaid, T.** Tenthredinoidea* (Papers from the Harriman Alaska Expedition), **140,** Nov. 24—**Langer, J.** Bees' poison and bees' sting, Sitzungsberichte der deutschen . . . Vereines für Böhmen "Lotos" in Prag, Jahrgang, 1899.—**Webster, F. M.** Some insects belonging to the genus *Isosoma* reared or captured in Indiana, **141.—Wheeler, W. M.** The habits of *Ponera* and *Stigmatomma*, figs., **116;** See also Orthoptera.

Notes and News.

ENTOMOLOGICAL GLEANINGS FROM ALL QUARTERS OF THE GLOBE.

CORRECTION.—On last line, p. 614, the date 1898 is given as the time Dr. Hulst was connected with Rutgers College, whereas the year was in reality 1889.

MR. PHILIP LAURENT will spend several months collecting in Florida. He has lately returned from a visit to Mr. O. D. Foulks, of Stockton, Md., who has a fine place for gentlemen interested in quail and duck shooting. Mr. Foulks is also a well-known entomologist.

Clisiocampa fragilis.—Now that so much is being written about the ravages of the eastern species of *Clisiocampa*, it may be worth while to report that *C. fragilis* has been exceedingly destructive the last two summers in Sapello Canon, N. M., and the adjacent territory, especially defoliating the quaking aspens (*Populus tremuloides*). From cocoons gathered at Beulah I bred a parasite, identified by Mr. Ashmead as *Pimpla*

atroco.valis Cresson. No dipterous parasites have yet been reported from this species, but doubtless *Archytas analis*, reported from *Clisiocampa californica*, and *Tachina mella*, reported for *Clisiocampa* sp. at West Cliff, Colo. (see Coquillett, Revision of the Tachinidæ) were in reality bred from *C. fragilis*.—T. D. A. COCKERELL.

MR. W. G. FREEDLY, JR., states that *Limenites orthemis* was very scarce at East Dorset, Vermont, during the past summer. It is usually there in great abundance. He also reports the capture of *Callidryas eubule* at the same place on August 27th. This is a very rare species in New England, especially in the northern part.

Lasiocampa medusa Strecker.—My friend Dr. Abbot, of Pasadena, while on a visit to his ranch near San Diego, Cal., found one of these moths in his tent, and about the same time a man working on the place found another. Thinking they might be something good, judging from their size and general appearance, Dr. Abbot turned them over to me. The two specimens agree almost exactly with Dr. Strecker's description in ENT. NEWS, January, 1898, except as to size, my specimens being 3¾ inches in expanse of the wings. On comparing with *arizonensis*, they prove to be very distinct by their heavy appearance and thick hair on the abdomen. The specimens were shown to several other collectors in this vicinity and they were of the same opinion as to the identification of the species. Dr. Strecker's specimen is the only other known as far as I know, so I thought this would be worth recording.—FORDYCE GRINNELL, JR., Pasadena, Cal.

YOUR naptha launch story in last issue may do very well in the United States, but is nothing for a country where we feed pigs on the salmon thrown ashore, and stop railway trains with tent caterpillars. Last fall, writer's company put down quarter of a mile of small-sized water pipe and afterwards found that nearly every section was stopped up by *crickets*. It had been lying on the ground at the time first frosts reminded crawling things of winter quarters, and was literally so packed that we could not shake or force the creatures out, but had to dissicate them. In time and trouble they easily cost us a couple of hundred dollars. Entomologists! come to Canada.—DWIGHT PRAINERD, Montreal, Dec. 10, 1900.

AT TOKIO, toward the close of May and the beginning of June, one sees suspended under the verandas of houses beautiful little cages of bamboo from which break upon the ear strange little metallic whistlings of light trills, which fill the air with delicate music. The musical sounds are emitted by certain insects. Listening to these minute singers has been for many centuries a favorite pastime of the Japanese. The most prized of these singing insects is the suzumushi. Its name means "insect bell," and the sound which it emits resembles that of a tiny silver bell. It is a tiny black beetle, of a flat body and very vulgar appearance. The

kutsuwa-mushi is so named because its cry resembles the sound made by a horse in champing the bit. There are two species of it, the one a light yellow and the other a pale green. This insect is none other than a kind of winged grasshoper, common in many countries.—*Newspaper.*

Diaspis piricola.—Mr. Marlatt, in his interesting article in ENT. NEWS, November, credits the combination *Diaspis piricola* to Francesco Saccardo, but that writer did not propose any such name; nor did Berlese, who also pointed out the generic position of Del Guericio's species Both these writers proposed to continue the erroneous name *Diaspis ostreæformis.* The first occurrence of the combination *Diaspis piricola*, so far as I know, is in Bull. 6, Tech. Ser., Div. Ent., p. 4 (1897). The method of double citation (of the authors of the name and of the combination), while customary in botany, is not so usual in zoology; but when it is employed care should be taken to follow the rules governing it.—T. D. A. COCKERELL.

Doings of Societies.

By invitation of Mr. Wm. D. Kearfott, of Montclair, N. J., the Newark Entomological Society held its regular meeting at his residence, Sunday, December 9th. Seven members present, President Buchholz presiding. Visitors, Mr. Braun, of Newark, N. J., Messrs. Watson and Comstock, of New York.

Mr. Kearfott entertained his visitors very agreeably, exhibited his extensive collection, consisting of Lepidoptera from all quarters of the globe, it being especially rich in the microlepidoptera of N. America, to which, of late, he has been directing his main efforts, and among these are probably many undescribed species of Tineidæ. Excellently mounted on silver wire and polyphorus strips, these small forms made a beautiful and very artistic exhibit. Mr. Kearfott also explained his method of inflating larvæ, exhibiting the requisite apparatus, his collection containing inflated larvæ of over 500 species, among them, several examples of *Daremma catalpæ*, only recently recorded, from New Jersey.

Mr. Kemp reported the capture of *Spragueia dama* at Anglesea, N. J., September 3d.

"Aberrations and other odd forms," were made the subject for discussion and illustration at the next meeting.

S. T. KEMP, *Secretary.*

A meeting of the American Entomological Society was held October 25th. Dr. P. P. Calvert, President, in the chair. Mr. H. W. Wenzel donated a large and interesting collection of ants from the vicinity of Philadelphia and certain places in New Jersey. They were taken while searching for Pselaphidæ and Scydmænidæ. Mr. C. Schaeffer of the American Museum of Natural History, New York, called attention to a mistake in most collections of Coleoptera. The Cerambycids *Acanthocinus obliquus* and *pusillus* were considered synonymous, the latter being placed as a synonym of the former by Bates, whereas they are quite distinct, according to the speaker, who pointed out marked differences in the elytra and punctuation. Mr. Liebeck exhibited a paper-knife with a rabbit-foot handle, the hide of which had been entirely eaten by an insect, nothing being left but the bones. The insect doing the damage was probably *Tinea biselliella*. Mr. Wenzel exhibited fourteen specimens of *Cychrus elevatus* showing great variation in size and other characters. Mr. Schaeffer exhibited a species of Coleoptera from Florida which is near the genus *Anomala*, but quite distinct. Mr. Wenzel said that in Mr. Schwarz's paper on Myrmecophilus insects he had mentioned *Adranes cæcus* as being found with but one species of ant, but the speaker had found this species with four species of ants as follows: *Lasius mixtus, alienis* var. *americanus, Lasius aphidicola* and *Aphænogaster aquia*. He also corroborates Mr. Schwarz's observation in regard to *Batrisus ione* being found only with *Lasius alienis* var. *americana*. A colony of *Formica integra* was examined in the fall and 14 specimens of *Cydius ziegleri* were taken. The following week the ants had entirely disappeared. The very minute species of Scydmænidæ, belonging to the genus *Opressus*, are exceedingly swift runners. Mr. Liebeck said he had seen *Hetærius brunneipennis* from a large ant's nest brought to the Academy.

Dr. Calvert mentioned two dragonflies brought in by Mr. Daecke which had been taken at Manumuskin, N. J., and said *Gomphus plagiatus* was new to the New Jersey list, although the speaker had taken it in Pennsylvania. Mr. Liebeck men-

tioned putting Dermastid larvæ in a tin box and subsequently found cast-off skins and nothing else. Dr. Calvert spoke of the egg of the common fruit fly with its two processes, one half as long as the egg, and these processes seem to have small air cells.

HENRY SKINNER, *Secretary.*

A meeting of the Entomological Section of the Academy of Natural Sciences of Philadelphia was held November 22nd. Mr. Philip Laurent, Director, presiding. Mr. Laurent donated two specimens of the blown larva of *Hemileuca maia*. Dr. Calvert recorded the occurrence of a single male dragonfly *Sympetrum* (*Diplax*) *vicinum* Hagen by the pond in the Botanical Garden of the University of Pennsylvania, November 21st. This is believed to be the latest date yet recorded for this species in this locality;* in his Catalogue of the Philadelphia Odonata (1893), he had given October 26th as the latest, stating, however, that the species would probably be found still later, a prediction now verified. The occurrence of this individual yesterday is the more interesting, because on November 16th the maximum and minimum temperatures for Philadelphia are officially given as 42° F. (5.5° C.), and 29° F. (—1.7° C.) respectively; although on November 22nd the maximum and minimum were 74° F. (23° C.), and 65° F. (18° C.) respectively. The individual was captured, identified and released; it was quite lively when set free. Dr. Calvert also called attention to a valuable paper by Dr. Justus Watson Folsom on the mouth parts of *Anurida maritima*, one of the Collembola. The interesting features of the paper were mentioned. Dr. Skinner exhibited a variety of *Pieris protodice* and made some remarks on the species in conjunction with *Pieris occidentalis*. Mr. Reinick said he had spent ten days on the Jersey coast at Atlantic City in October. While out fishing he

* On November 23d, I found a female of this species in the same locality, but have not been able to find any individuals later. The other dates in November on which I saw this species at this pond were the 5th (ovipositing), 6th, 7th and 10th.—P. P. CALVERT.

had a lot of clams for bait, and was surprised at the number of Coleoptera they attracted. He also saw many specimens of *Phaleria testacea* in hard cedar logs.

Mr. C. W. Johnson called attention to an article in the first report of the Michigan Academy of Science on a leaf-mining *Chironomus*, but the species was not named. He said he had received from Prof. Smith an allied Dipteron reared from the leaves of the *Victoria regia*, and they were found to be *Cricoptopus sylvestris*. Dr. Calvert said he would like to ask whether it is better to give species fanciful names or name them after some character of the insect. This was discussed pro and con by those present. Mr. Laurent said Mr. Daecke had reported *Agrotis violaris* from Manumuskin, N. J. The speaker said he knew of but one other specimen in any other Philadelphia collection, and that was the type in the collection of the American Entomological Society. He also showed the chrysalis of *Callidryas eubule*, and said the larva of *Sphinx plebeius* was plentiful on the trumpet vine at Anglesea, N. J. He also reported *Tettigea hieroglyphica* from Da Costa, N. J., on July, 11th. Dr. T. H. Montgomery, Jr., was elected a Member and Mr. Erich Daecke an Associate.

HENRY SKINNER, *Recorder*.

At the November meeting of the Feldman Collecting Social, held at the residence of Mr. H. W. Wenzel, 1523 South Thirteenth Street, fifteen persons were present.

Prof. J. B. Smith spoke of a recent collecting trip to Ocean County, N. J., on November 19th, and said that he had found numerous mosquito larvæ living in pitcher plants. The plant is a veritable trap for insects, which disintegrate after death and lie in a decaying mass on the bottom of the plant, in which the young mosquitos are nourished.

Dr. Skinner referred to a recent article by Mr. Barrett in ENTOMOLOGICAL NEWS, on a dragonfly larva which was supposed to live in the large leaves of some plants containing water, inasmuch as the region in which the species is found is unusually dry and not propitious for dragonfly larvæ.

Prof. Smith spoke on the great destructiveness of the Hessian

fly during the past season. Owing to the drought the fly had not emerged until the time that wheat was well up. Wheat should not be sown until after rain has broken the drought.

Mr. Daecke exhibited specimens from Manumuskin, N. J., including *Anthocharis genutia*, April 24th. Also a *Catocala relicta* from Philadelphia "Neck."

In connection with these specimens Prof. Smith remarked that among them was one of the rare *Agrotis violaris*.

The oviposition of *Cicada hieroglyphica* was referred to by Prof. Smith. He had found a pupal skin of this species in a decayed cavity inside of a pine log. The pupæ usually cling to the bark of trees which they may ascend.

Mr. H. Wenzel said he had found *Cicada canicularis* commonly in the latter part of August at Anglesea, N. J.

Dr. H. Skinner referred to a recent paper on the genus *Argynnis*, and a criticism by Mr. Lyman thereon. He spoke of the lack of data to specimens on which earlier work on this genus was based, and considered this to be the reason for the errors which had been made. He believed that a study of geographical distribution would settle many points in regard to synonymy in *Argynnis*, as many so-called species are, no doubt, only geographical variations.

Mr. Reinick exhibited some tri-color process plates of insects issued by a Boston concern, and referred to errors in names and coloration. As these were issued for educational purposes he thought attention should be called to the matter.

Mr. Harbeck referred to the abundance of *Passalus cornutus* in logs in Fairmount Park, Philadelphia.

The occurrence of this species was further discussed by H. Wenzel, Smith, Johnson, Harbeck.

Mr. H. Wenzel reported that he had recently taken several species of Pselaphidæ in the lowlands of New Jersey, which had been described from mountain altitudes.

Prof. Smith did not believe elevation counts for much in the distribution of insects of this character.

The probable change of temperature in dead and live trees as effected by external influences was discussed by Messrs. Daecke, Smith, Wenzel, Laurent and others.

Mr. Laurent referred to the great damage done by *Pieris rapæ* in Pike and Monroe Counties, Pennsylvania, and in sections of New Jersey.

In reply to Prof. Smith, he stated he had seen the caterpillars of *rapæ* at work.

Prof. Smith said that *Plusia brassicæ* had done the most injury to cabbage in south New Jersey.

Prof. Smith spoke of the death of Rev. Geo. D. Hulst, on November 5th, and referred to his entomological work.

On motion, the following resolutions presented by Prof. Smith, were adopted:

Resolved, That in the death of Dr. George D. Hulst, entomology has lost an able worker in his very prime, and when the character of his publications showed that his best was just being given to us. This is a loss to be regretted by the members individually and as a body, and they hereby record their sorrow and regret,

Resolved further, That the character of the deceased was such, that the loss of the man is equal to the loss of the scientist; to be regretted by all who admire justness and uprightness in thought and speech,

Resolved further, That this minute be spread upon the records of the Social and that a copy be forwarded to the family of the deceased by the Secretary.

Mr. E. Daecke was unanimously elected a member of the Social. WILLIAM J. FOX, *Secretary*.

OBITUARY.

Dr. Otto Staudinger died at Lucerne, Switzerland, on Oct. 13th, in his seventy-first year. He was well known to American students of the Lepidoptera.

A letter just received from M. René Martin contains the sad news of the death of M. le Baron Edmond de Selys-Longchamps, the greatest authority on the Odonata. His decease occurred a few days previous to December 13th, but the exact date is not mentioned. We shall give a notice of his life and labors in the February number.—P. P. CALVERT, Dec. 26, 1900.